Remarks

Claims 15-36 are pending in the application. All claims stand rejected. By this paper, claims 15-36 have been have cancelled. New claims 37-96 have been included to provide claim coverage commensurate with the scope of the invention. No new matter has been added.

Claim 1 [*sic*, 15] was rejected under 35 U.S.C. 112 as having a limitation ("said wired network") lacking sufficient antecedent basis. Claim 15 has been cancelled, and the "said wired network" limitation does not appear in any of the new claims 37-90.

Claims 15-17, 20-25, 27, 31, and 33 were rejected under 35 U.S.C. 102(e) as being anticipated by Broadwin et al. ("Broadwin"). Claims 18-19, 26, 28-30, 32, and 34-36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Broadwin and further in view of Schmeidler et al. ("Schmeidler").

New claim 37 recites a computer-implemented method comprising:

> receiving a digital broadcast signal comprising a plurality of multimedia streams;
>
> identifying one or more of the multimedia streams that match a set of preprogrammed interest parameters;
>
> caching the one or more multimedia streams over a period of time as each is identified; and
>
> automatically generating a customized information page including the one or more cached multimedia streams for subsequent retrieval by a user.

These claimed features allow a user to specify categories of information he or she is interested in receiving, *e.g.*, "news stories covering the 2004 election." The system then monitors the digital broadcast signal over a period of time for information

matching these preprogrammed interest parameters. Whenever multimedia streams are found that match the parameters, the streams are cached within the system. Later, the system automatically generates a customized information page including all of the matching data collected over the period of time, which may be retrieved and displayed by the user.

By contrast, Broadwin discloses a system for displaying still images in response to an immediate selection or query. Broadwin provides a dedicated still-image channel that cycles through a set of MPEG-compressed still images. When the user selects a picture for viewing or initiates a query, the system captures the desired picture from the dedicated channel and displays the picture on the user's television.

Broadwin query or user selections are not preprogrammed in the sense that they exist before the digital broadcast signal is received. Also, the term preprogrammed suggests that the search for matching multimedia streams is ongoing as opposed to an immediate selection or query as in Broadwin. Furthermore, Broadwin does not cache one or more multimedia streams over a period of time as each is identified. Rather, Broadwin immediately captures still images satisfying a user's query or selection and immediately displays the images to the user.

Finally, Broadwin does not automatically generate a customized information page including one or more cached multimedia steams. When the user initiates a query or selects a particular image to view, the response of the system is not automatic. Rather, it is performed directly in response to the user's action. In the

case of the claimed invention, multiple streams may be cached over the course of a day or other designated time period. However, the streams are cached automatically, not in response to individual selections or queries as in Broadwin.

The addition of Schmeidler does not cure the deficiencies of Broadwin. Schmeidler relates to on-demand content, not broadcast content such as terrestrial, cable, or satellite television. In fact, Schmeidler does not even mention the word "broadcast."

Furthermore, in page 7 the office action, the Examiner looks to Schmeidler for a teaching of user queries and matching responses to multimedia streams. However, the disclosure pointed to by the Examiner actually refers to a Conditional Access Server (CAS), which merely stores information for decoding on an on-demand multimedia stream. For instance, the database 750 is said to store "short-term stay data, such as the stay data of a token requesting refresh, or long-term stay data, such as title names, crytographic key information, and other information for titles available over the SCDP system." Col. 17, lines 61-65. There is no teaching or suggestion in Schmeidler for:

> (1) identifying one or more of the [received] multimedia streams that match a set of preprogrammed interest parameters;
>
> (2) caching the one or more multimedia streams over a period of time as they are identified; and
>
> (3) automatically generating a customized information page including the one or more cached multimedia streams for subsequent retrieval by a user.

In view of the foregoing, the applicants respectfully submit that new claim 37 is patentably distinct over Broadwin and Schmeidler, alone or in combination. New

claims 38-47 depend directly or indirectly from claim 37, and are likewise believed to be patentably distinct for at least the same reasons.

New claim 38 recites the step of receiving the digital broadcast signal from one or more terrestrial digital television broadcast sources. Likewise, claim 39 specifies that the digital broadcast signal comprises an MPEG-2 transport protocol stream received with an ATSC digital television signal. As is clear from FIG. 1 of Broadwin and the accompanying disclosure, Broadwin relates to a satellite delivery system, not a terrestrial digital television broadcast source. This can be an important distinction, since satellite delivery systems do not typically have excess broadcast capacity as do terrestrial systems. Likewise, Schmeidler does not disclose or suggest terrestrial digital television broadcasting, as discussed above.

New claim 40 recites that the multimedia streams comprise moving picture streams. Broadwin clearly discloses still images, not moving images. His system operates by cycling through a series of still images within a dedicated still-image channel. Successive images are not related to one another temporally and are not, therefore, moving images.

New claim 41 recites the step of using the multimedia descriptor to create a multimedia directory that references the one or more cached multimedia streams. Broadwin does not cache multiple images. Broadwin simply captures a specified image from the dedicated channel and displays it to the user. Hence, Broadwin has no need for a multimedia directory to reference a number of cached images. Similarly, Schmeidler does not disclose or suggest caching multiple streams received from a broadcast source.

New claim 44 recites the steps of identifying a live multimedia stream that matches the preprogrammed interest parameters and incorporating the live multimedia stream into the customized information page. Neither reference discloses or suggests including both a cached multimedia stream and a live multimedia stream within a customized information page.

New claim 45 recites the steps of retrieving supplemental information from the Internet that matches a set of preprogrammed interest parameters and incorporating the supplemental information into the customized information page. Neither reference discloses or suggests including both a cached multimedia stream and supplemental information from the Internet in the same customized information page. Indeed, Broadwin's system is designed as a substitute for browsing the Internet. Hence, Broadwin actually teaches away from the claimed inclusion of supplemental information from the Internet.

New claim 46 recites the additional steps of:

> receiving a user query;
>
> identifying any live multimedia streams that satisfy the user query;
>
> identifying any previously-cached multimedia streams that satisfy the user query; and
>
> dynamically generating a second customized information page including any identified live and previously-cached multimedia streams in response to the user query.

Neither reference discloses or suggests dynamically generating a second customized page including both a live multimedia stream and a previously-cached multimedia stream. Furthermore, claim 46 specifically recites the generation of a second customized page in response to a query, as differentiated from the first

customized page recited in claim 37 generated automatically from cached multimedia streams that satisfy preprogrammed interest parameters. Hence claim 46 recites two types of customized pages based on different inputs (a user query and preprogrammed interest parameters). At best, Broadwin discloses the display of a single still image in response to a query.

New claim 47 recites that the customized information page comprises a web page. As noted above, Broadwin's system is described as being a substitute for Internet browsing. His pages are not encoded in HTML. Hence, they cannot be referred to as "web pages." Schmeidler also does not disclose "customized information pages" including cached multimedia streams from a broadcast medium.

New claim 48 recites a method comprising:

> receiving a digital broadcast signal comprising a plurality of multimedia streams;
>
> identifying, for each of a plurality of client systems, one or more multimedia streams that match a set of preprogrammed interest parameters for a particular client system;
>
> centrally caching the identified multimedia streams; and
>
> automatically generating a customized information page for each client system comprising one or more identified multimedia streams for subsequent retrieval by a respective user.

Claim 48 is similar to claim 37 except that it describes a process within a multimedia server that centrally caches the multimedia streams for a plurality of client systems, each of which have their own preprogrammed interest parameters. Moreover, the server automatically generates a customized information page for each client system.

Broadwin does not disclose centrally caching a number of multimedia streams for a plurality of client systems. At best, Broadwin discloses a single still image being stored within the memory of an individual client system. Furthermore, Broadwin does not disclose or suggest automatically generating a custom information page for each of a plurality of client systems. Schmeidler does not even disclose or suggest caching streams from a broadcast medium.

In view of the foregoing, the applicants respectfully submit that new claim 48 is patentably distinct over the cited references, alone or in combination. New claims 49-66 depend directly or indirectly from claim 37, and are likewise believed to be patentably distinct for at least the same reasons.

New claims 52 and 64 recite the step of rebroadcasting a cached multimedia stream to one or more client systems. Claims 53 and 65 recite that the rebroadcasting is accomplished using a local area network. Broadwin does not disclose or suggest rebroadcasting by a receiving system, let alone rebroadcasting via a local area network. At best, Broadwin discloses broadcasting still images on a dedicated channel. Broadwin's receiving system does not then rebroadcast the still images to a client system. Similarly, Schmeidler does not disclose or suggest rebroadcasting via a local area network or otherwise.

New claim 60 recites a method for distributing data, comprising:

multiplexing a plurality of multimedia streams received from a plurality of data sources;

modulating the multiplexed streams into a digital signal;

broadcasting the modulated digital signal to a plurality of receiving systems;

demodulating the broadcasted signal;

demultiplexing at least a portion of the plurality of multimedia streams;

caching a first demultiplexed stream within a receiving system that matches a first set of preprogrammed interest parameters; and

caching a second demultiplexed stream within a different receiving system that matches a second set of preprogrammed interest parameters.

Neither of the cited references discloses multiplexing a plurality of multimedia streams received from a plurality of data sources. Even if they did, the references do not disclose caching a first demultiplexed stream within a receiving system that matches a first set of preprogrammed interest parameters, as well as caching a second demultiplexed stream within a different receiving system that matches a second set of preprogrammed interest parameters. Accordingly, claim 60 is believed to be patentably distinct over the cited references. Claims 61-66 depend directly or indirectly from claim 60, and are likewise believed to be patentably distinct for at least the same reasons.

New claim 61 recites the step of broadcasting the modulated digital signal using excess broadcast capacity of a terrestrial digital television transmission system. Similarly, new claim 62 recites the step of broadcasting the modulated digital signal using excess broadcast capacity of a plurality of terrestrial digital television transmission systems. Neither reference discloses or suggests using the excess broadcast capacity of one or more terrestrial digital television transmission systems for sending data to a plurality of receiving systems.

In view of the foregoing remarks, the applicants respectfully submit that new claims 37-66 are patentably distinct over the cited references, alone or in

combination. New claims 67-96 include similar limitations in a system format and are likewise believed to be patentably distinct for at least the same reasons.

Reconsideration and early allowance of all pending claims herein, *i.e.*, claims 37-96, is respectfully requested.

Respectfully submitted,

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